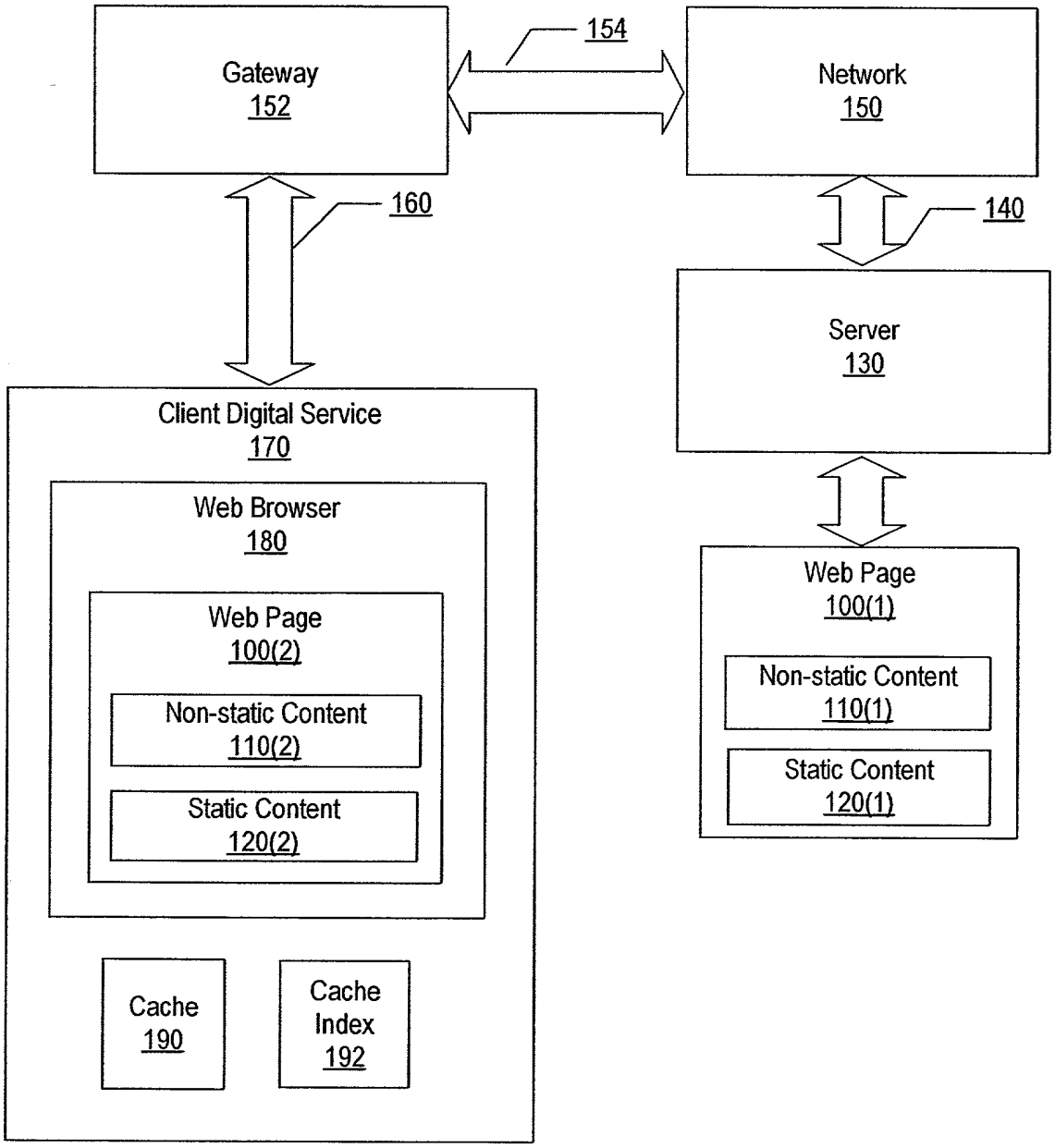
Gateway
152
154
Network
150
160
140
Server
130
Client Digital Service
170
Web Browser
180
Web Page
100(2)
Non-static Content
110(2)
Static Content
120(2)
Cache
190
Cache
Index
192
Web Page
100(1)
Non-static Content
110(1)
Static Content
120(1)

FIG. 1A

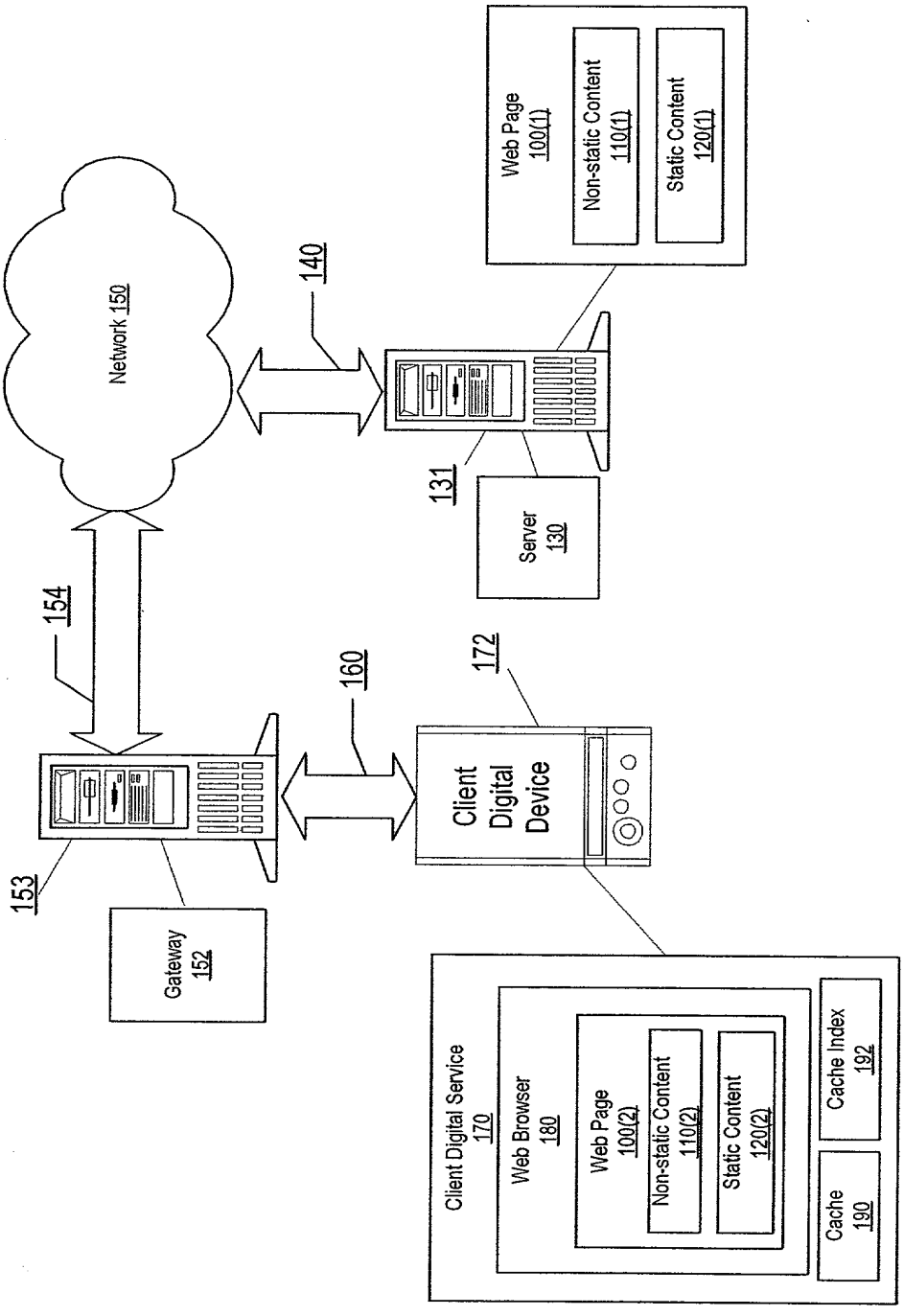
Web Page 100(1)
Non-static Content 110(1)
Static Content 120(1)
140
Network 150
131
Server 130
154
160
172
Client Digital Device
153
Gateway 152
Client Digital Service 170
Web Browser 180
Web Page 100(2)
Non-static Content 110(2)
Static Content 120(2)
Cache Index 192
Cache 190

FIG. 1B

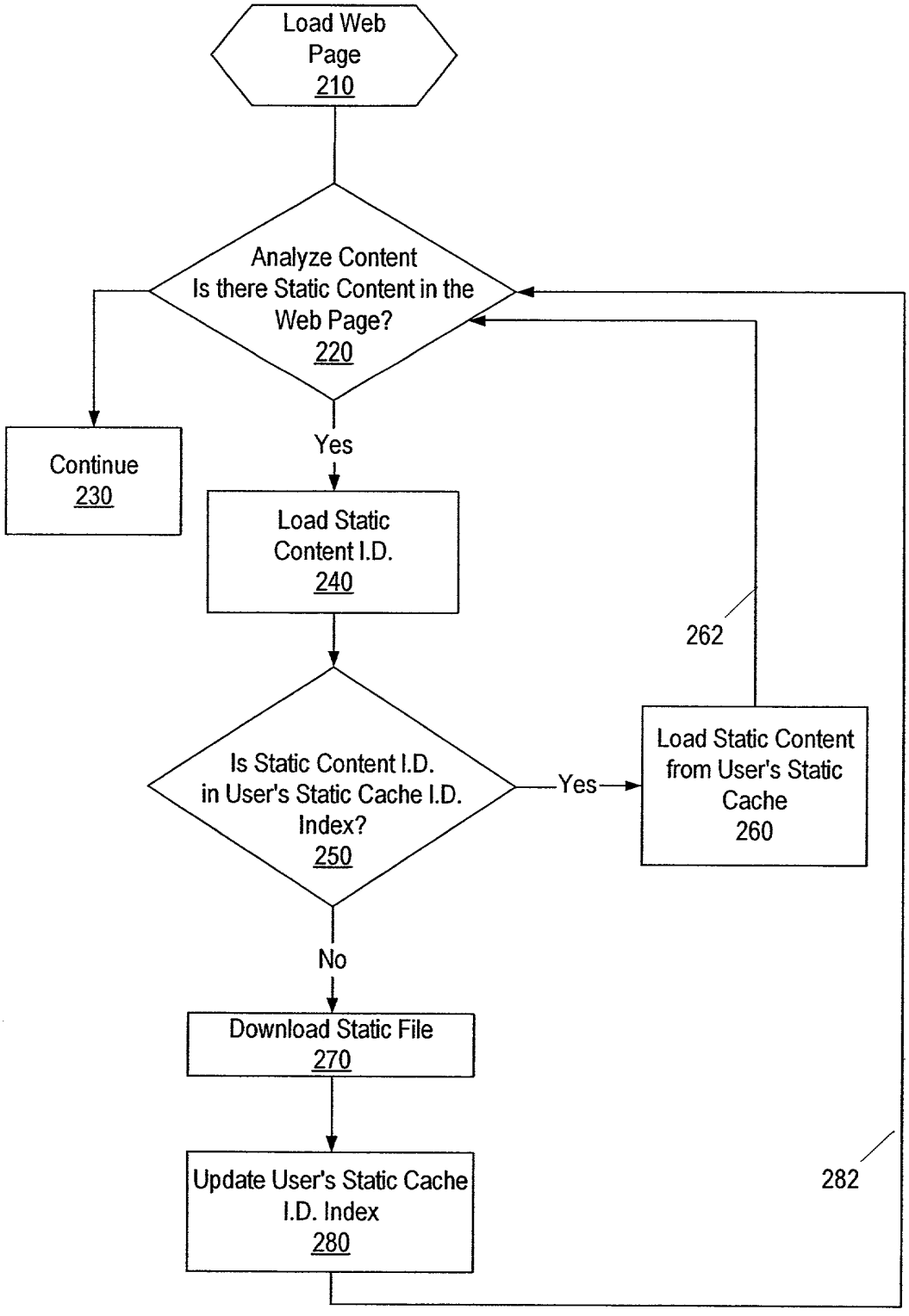
Load Web Page 210
Analyze Content Is there Static Content in the Web Page? 220
Continue 230
Yes
Load Static Content I.D. 240
Is Static Content I.D. in User's Static Cache I.D. Index? 250
Yes
Load Static Content from User's Static Cache 260
262
No
Download Static File 270
Update User's Static Cache I.D. Index 280
282

FIG. 2A

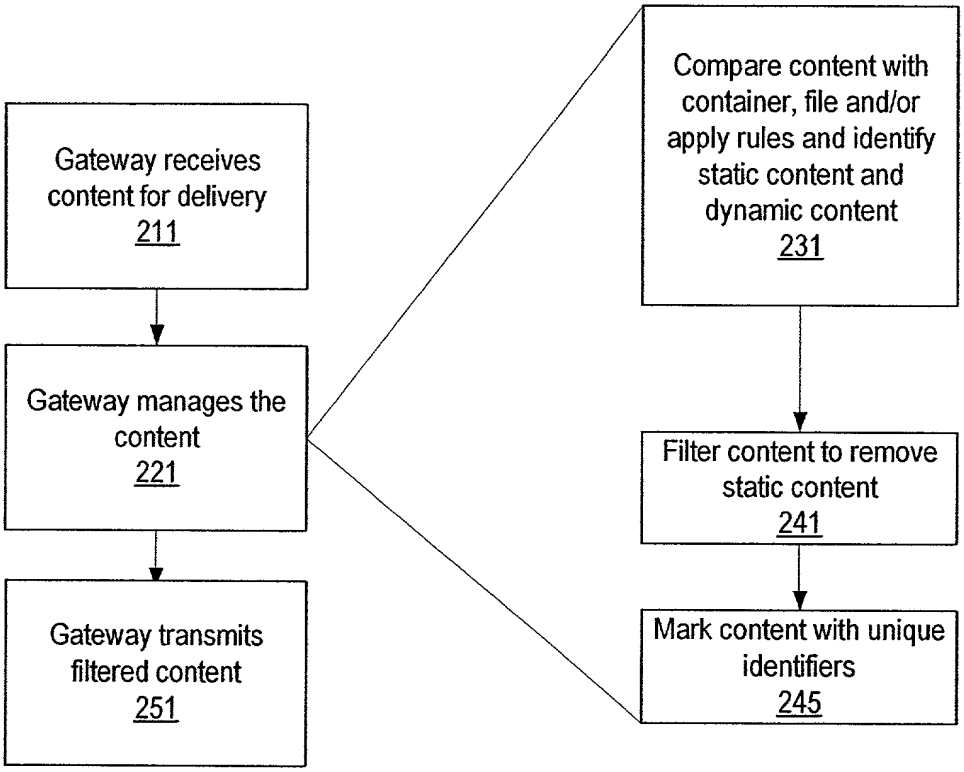
Gateway receives content for delivery 211
Gateway manages the content 221
Gateway transmits filtered content 251
Compare content with container, file and/or apply rules and identify static content and dynamic content 231
Filter content to remove static content 241
Mark content with unique identifiers 245

FIG. 2B

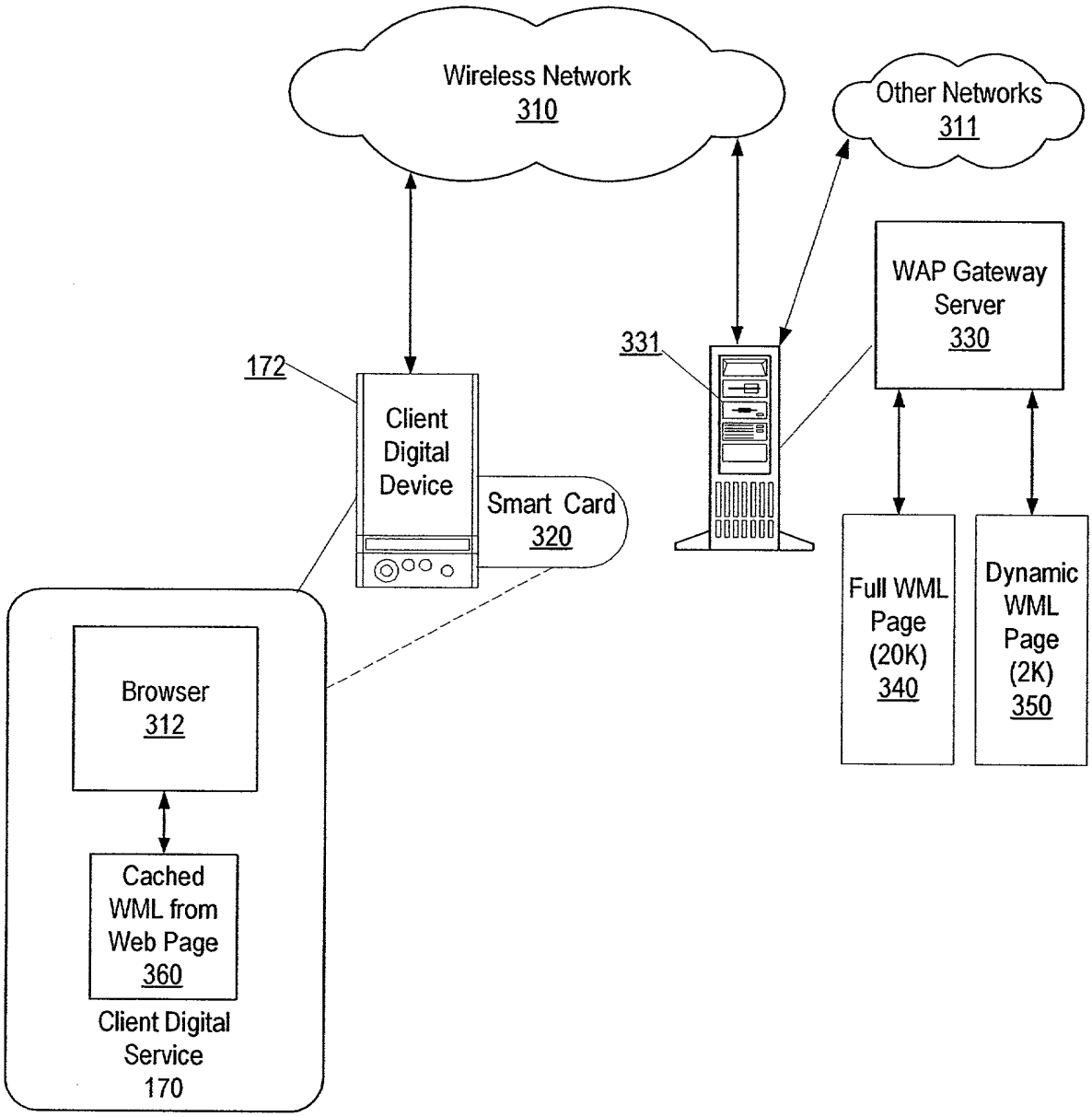
Wireless Network
310
Other Networks
311
WAP Gateway
Server
330
331
172
Client
Digital
Device
Smart Card
320
Full WML
Page
(20K)
340
Dynamic
WML
Page
(2K)
350
Browser
312
Cached
WML from
Web Page
360
Client Digital
Service
170

FIG. 3

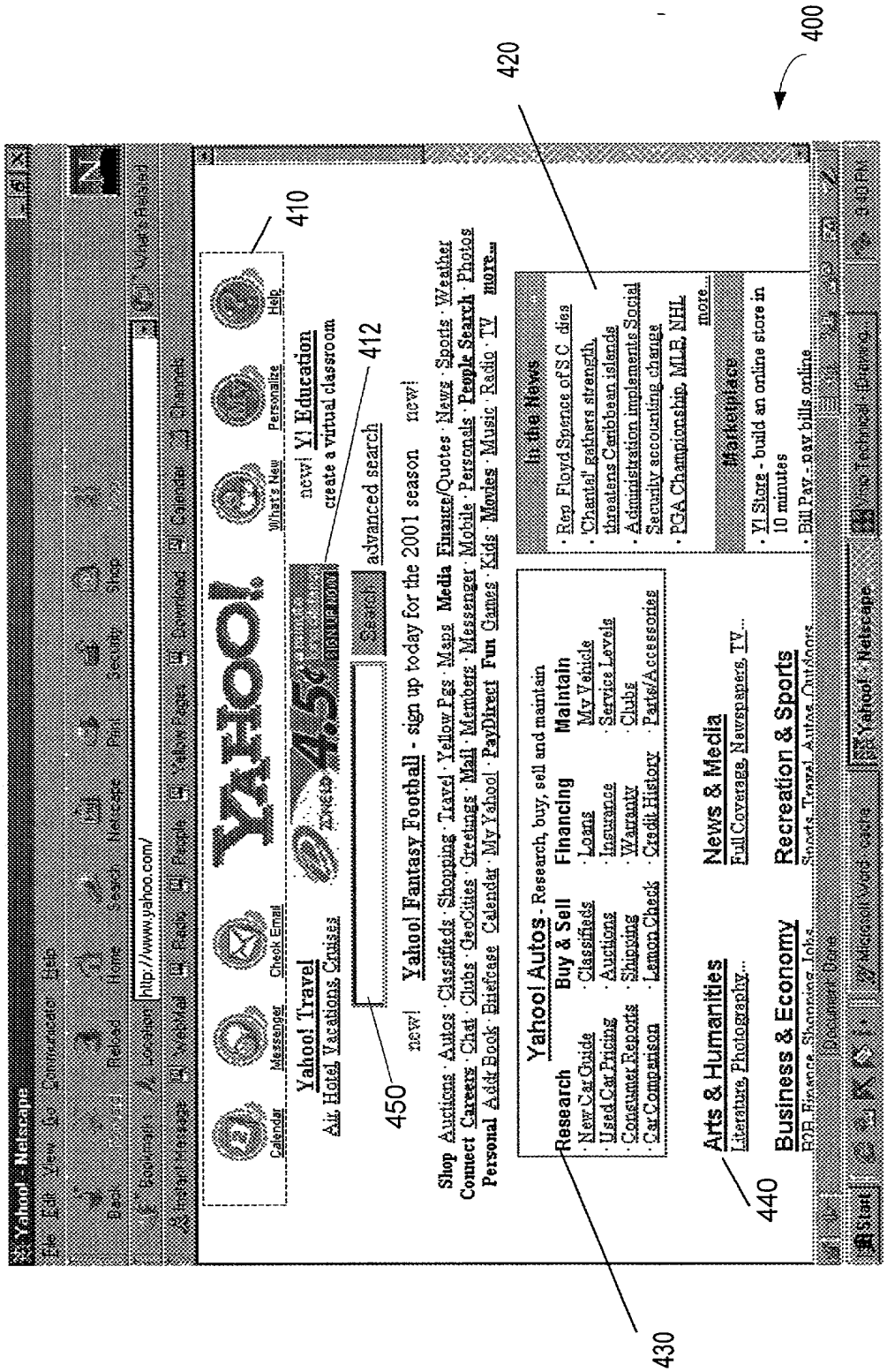
400
410
420
430
440
450
412
Yahoo! Netscape
YAHOO!
Yahoo! Travel
Yahoo! Fantasy Football - sign up today for the 2001 season
Search
advanced search
Yahoo! Autos - Research, buy, sell and maintain
Research
Buy & Sell
Financing
Maintain
Arts & Humanities
News & Media
Business & Economy
Recreation & Sports
In the News
Marketplace

FIG. 4

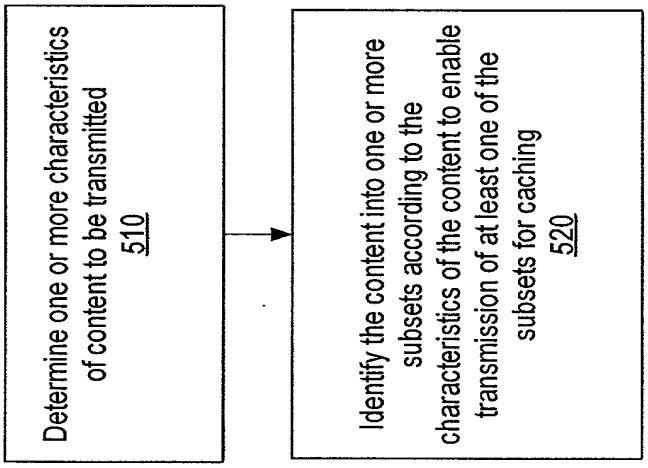
Determine one or more characteristics of content to be transmitted
510
Identify the content into one or more subsets according to the characteristics of the content to enable transmission of at least one of the subsets for caching
520

FIG. 5

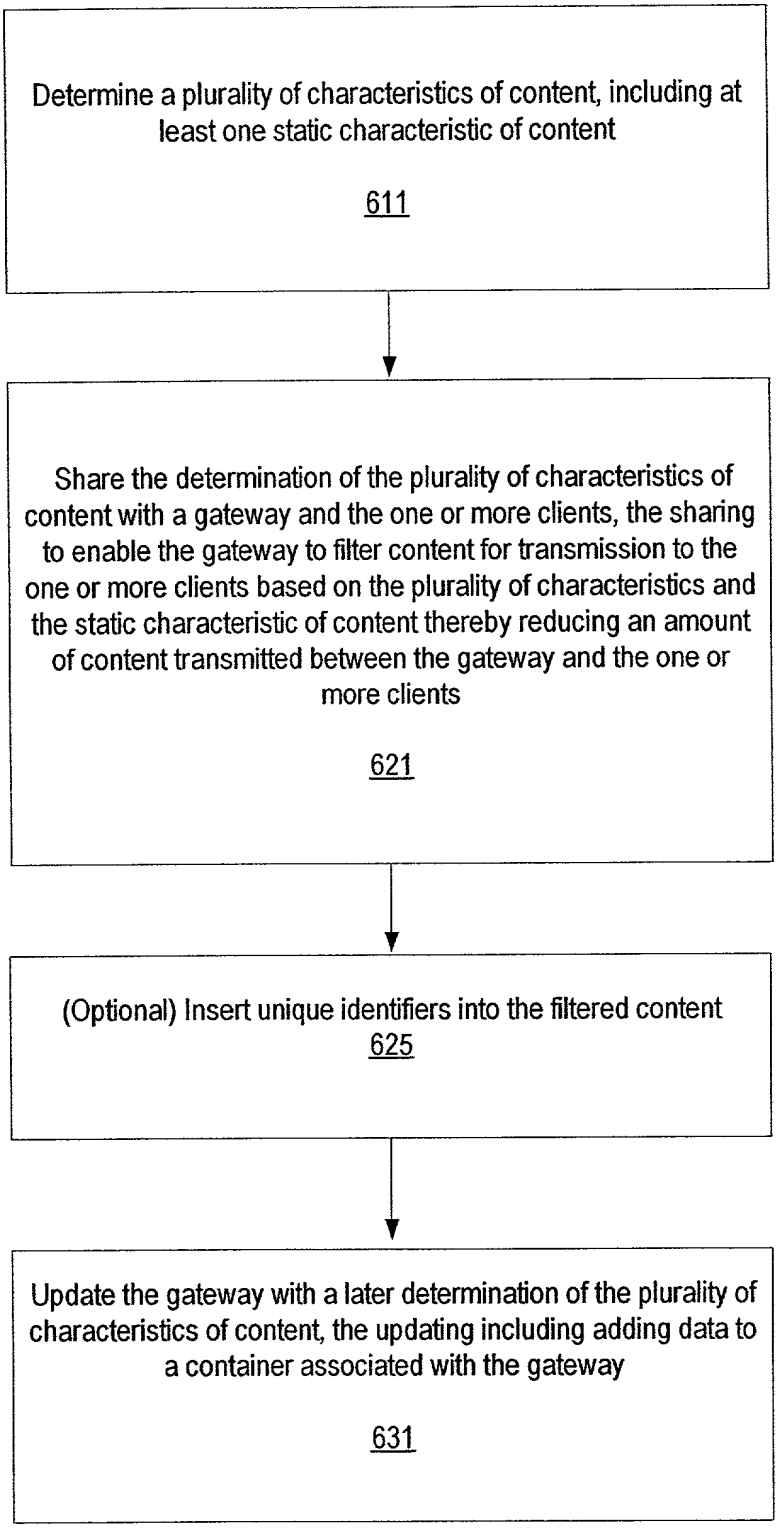
Determine a plurality of characteristics of content, including at least one static characteristic of content
611
Share the determination of the plurality of characteristics of content with a gateway and the one or more clients, the sharing to enable the gateway to filter content for transmission to the one or more clients based on the plurality of characteristics and the static characteristic of content thereby reducing an amount of content transmitted between the gateway and the one or more clients
621
(Optional) Insert unique identifiers into the filtered content
625
Update the gateway with a later determination of the plurality of characteristics of content, the updating including adding data to a container associated with the gateway
631

FIG. 6A

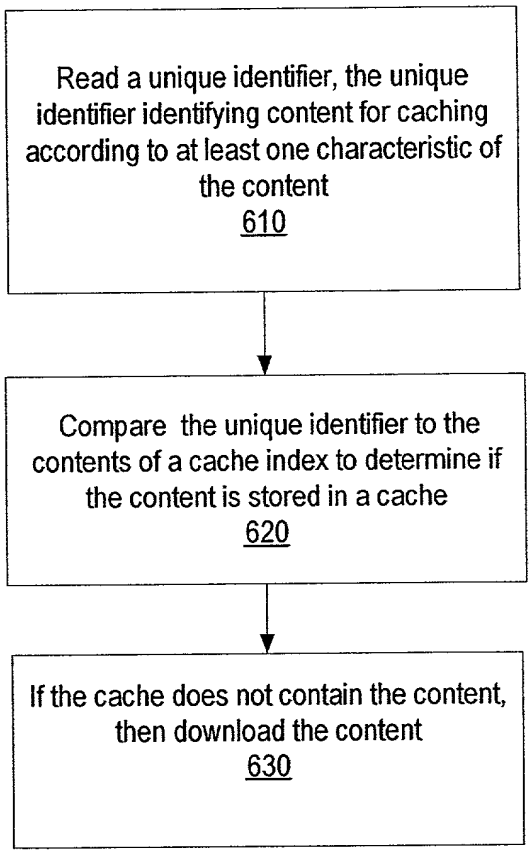
Read a unique identifier, the unique identifier identifying content for caching according to at least one characteristic of the content
610
Compare the unique identifier to the contents of a cache index to determine if the content is stored in a cache
620
If the cache does not contain the content, then download the content
630

FIG. 6B

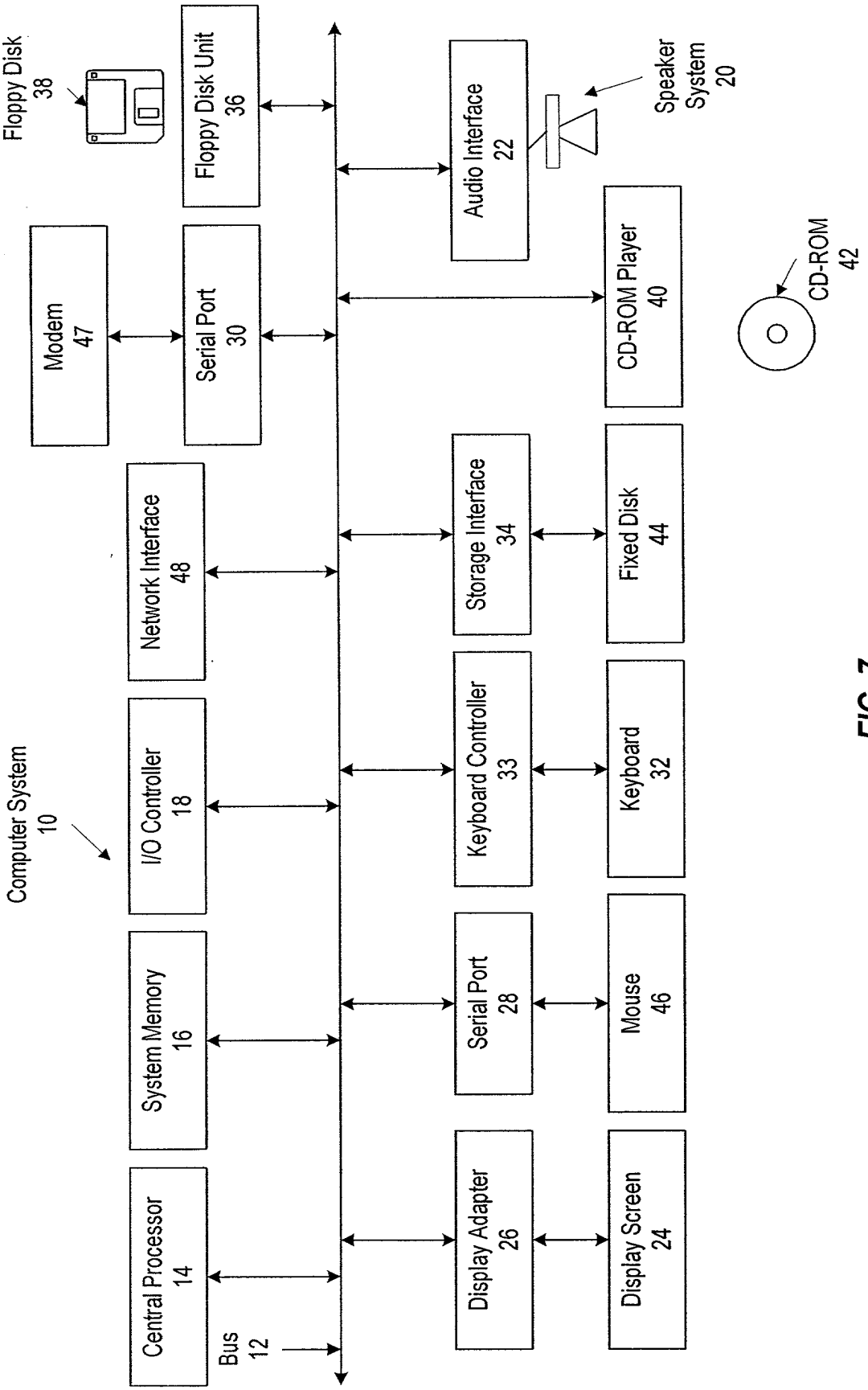
Computer System
10
Bus
12
Central Processor
14
System Memory
16
I/O Controller
18
Network Interface
48
Modem
47
Serial Port
30
Floppy Disk
38
Floppy Disk Unit
36
Display Adapter
26
Display Screen
24
Serial Port
28
Mouse
46
Keyboard Controller
33
Keyboard
32
Storage Interface
34
Fixed Disk
44
Audio Interface
22
Speaker
System
20
CD-ROM Player
40
CD-ROM
42

FIG. 7